

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 30

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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Ex parte NICHOLAS D. OSBORNE,  
ANDREW D. SUTTON, and  
RICHARD A. JOHNSON

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Appeal No. 2002-1682  
Application No. 09/023,696

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ON BRIEF

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Before WINTERS, MILLS, and GRIMES, Administrative Patent Judges.

WINTERS, Administrative Patent Judge.

DECISION ON APPEAL

This appeal was taken from the examiner's decision rejecting claims 21 through 27. Claims 1 and 20, which are the only other claims remaining in the application, stand withdrawn from further consideration by the examiner as directed to a non-elected invention.

Representative Claim

Claim 21, which is illustrative of the subject matter on appeal, reads as follows:

21. An ultrasound contrast agent comprising hollow microcapsules characterized in that the microcapsules, when suspended in degassed water at 20°C to give a homogenous microcapsule concentration of 13.0 µg/ml, have a reflectivity to 3.5 MHz ultrasound of at least -1.0 dB.

### The Prior Art References

In rejecting the appealed claims on prior art grounds, the examiner relies on the following references:

Erbel et al. (Erbel)	5,205,287	Apr. 27, 1993
Grinstaff et al. (Grinstaff)	5,498,421	Mar. 12, 1996
Sutton et al. (Sutton)	5,518,709	May 21, 1996
Klaveness et al. (Klaveness)	5,536,490	Jul. 16, 1996
Schutt et al. (Schutt)	5,605,673	Feb. 25, 1997

### The Rejection

As set forth in the Examiner's Answer (Paper No. 22), page 3, claims 21 through 27 stand rejected "under 35 U.S.C. 102(b) [Erbel] or 102(e) [Klaveness, Sutton, Schutt and Grinstaff] as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Erbel, (USP 5,205,287), Klaveness (USP 5,536,490), Sutton (USP 5,518,709), Schutt (USP 5,605,673) and Grinstaff (USP 5,498,421)."

### Deliberations

Our deliberations in this matter have included evaluation and review of the following materials: (1) the instant specification, including Figure 1 and all of the claims on appeal; (2) applicants' Appeal Brief (Paper No. 21) and the Reply Brief (Paper No. 23); (3) the Examiner's Answer (Paper No. 22); and (4) the above-cited prior art

references.

On consideration of the record, including the above-listed materials, we reverse the examiner's prior art rejection.

### Discussion

The examiner argues that Klaveness expressly discloses each and every element of the claimed invention. We disagree. The examiner does not point to any passage in Klaveness describing "an ultrasound contrast agent comprising hollow microcapsules characterized in that the microcapsules, when suspended in degassed water at 20°C to give a homogenous microcapsule concentration of 13.0 µg/ml, have a reflectivity to 3.5 MHz ultrasound of at least -1.0 dB" (claim 21, emphasis added) or "an ultrasound contrast agent comprising hollow microcapsules characterized in that the microcapsules, when suspended in degassed water at 20°C to give a homogenous microcapsule concentration of 13.0 µg/ml, have a reflectivity to 3.5 MHz ultrasound of at least -7.4 dB" (claim 25, emphasis added). Nor do we find any such disclosure in the Klaveness patent. As stated by applicants, the claim limitation which specifies reflectivity in degassed water "defines a more rigorous test than is disclosed in Klaveness" (Paper No. 21, page 13).

Additionally, the examiner argues that Erbel, Sutton, Schutt, Grinstaff, or Klaveness discloses microcapsules which "appear to be prepared by a process which is the same" as the process described in applicants' specification for preparing the claimed ultrasound contrast agent comprising hollow microcapsules (Paper No. 22, page 5). According to the examiner, the prior art microcapsules must necessarily and

inevitably possess the same characteristics recited in the appealed claims because the prior art process for preparing microcapsules and applicants' process described in the specification are essentially the same. We disagree. The examiner does not point to any passage in Erbel, Sutton, Schutt, Grinstaff, or Klaveness disclosing a process for preparing microcapsules by (1) providing a solution of a material in an aqueous solvent; and (2) spraying said solution into a gas such that the aqueous solvent evaporates, thereby forming hollow microcapsules, characterized in that the aqueous solution contains a liquid of greater volatility than water. But that is the sine qua non of the process for preparing hollow microcapsules described in applicants' specification. See, e.g., the specification, page 1, line 24 through page 2, line 8. On this record, therefore, the examiner has not established that the prior art microcapsules "appear to be prepared by a process which is the same" as the process described in applicants' specification for preparing the claimed ultrasound contrast agent comprising hollow microcapsules. Where, as here, the premise of the examiner's rejection is not supported by evidence in the record, the rejection cannot stand.<sup>1</sup>

The rejection of claims 21 through 27 under 35 U.S.C. § 102(b) or § 102(e) as anticipated by the cited prior art is reversed.

Alternatively, the examiner argues that it would have been obvious to modify the microcapsules of Erbel, Sutton, Schutt, Grinstaff, or Klaveness to function so that, when

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<sup>1</sup> The examiner's argument that prior art microcapsules "appear to be prepared by a process which is the same" as the process for preparing hollow microcapsules described in applicants' specification is inconsistent with the issuance of process claims 1 through 14 in U.S. Patent No. 5,741,478. See Paper No. 21, page 15, footnote 1.

suspended in degassed water at 20°C to give a homogenous microcapsule concentration of 13.0 µg/ml, they have a reflectivity to 3.5 MHz ultrasound of at least -1.0 dB or at least -7.4 dB. This follows, according to the examiner, "because the prior art microcapsules are specifically prepared for use as ultrasound contrast agents which would require such characteristics" (Paper No. 22, page 5). However, the examiner fails to point out specific teachings in any of the cited references, or a sound rationale, which would support that conclusion. It cannot be gainsaid that numerous ultrasound contrast agents in the prior art have utility even though they do not possess the same advantageous characteristics of the claimed ultrasound contrast agent. Simply stated, the examiner has not explained how the cited prior art would have led a person having ordinary skill from "here to there," i.e., from the prior art ultrasound contrast agents to applicants' ultrasound contrast agent comprising hollow microcapsules having the characteristics specified in claims 21 through 27.

The rejection of claims 21 through 27 under 35 U.S.C. § 103 as unpatentable over the cited prior art is reversed.

### Conclusion

In conclusion, for the reasons succinctly set forth in applicants' main Brief and Reply Brief, amplified above, we reverse the examiner's prior art rejection of claims 21 through 27.

The examiner's decision is reversed.

REVERSED

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Sherman D. Winters	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
Demetra J. Mills	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
Eric Grimes	)	
Administrative Patent Judge	)	

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